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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,263	09/29/2003	Thomas Facke	PO7849/LeA 35,938	1765
157	7590	09/28/2005	EXAMINER	
BAYER MATERIAL SCIENCE LLC 100 BAYER ROAD PITTSBURGH, PA 15205			SERGENT, RABON A	
			ART UNIT	PAPER NUMBER
			1711	
DATE MAILED: 09/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/674,263

Applicant(s)

FACKE ET AL.

Examiner

Rabon Sergent

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/29/03, 2/23/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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1. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have failed to adequately define the language, “which carries at least one acrylate, methacrylate or vinyl ether double bond on the oxygen atom of the allophanate group”. Specifically, it is unclear what structures are encompassed by “carries”.

Furthermore, the claimed and disclosed structures for X-1 and X-2 do not appear to properly be allophanate groups, since there is no requirement that the terminal groups be linked to the carbonyl group through an oxygen atom.

2. Claims 1-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Firstly, as aforementioned, it is unclear what structures are encompassed by “carries”.

Secondly, as aforementioned, with respect to claim 16, the structures, X-1 and X-2, are not proper allophanate groups due to the lack of a required oxygen atom.

Thirdly, within line 2 of claim 13, the reference to “mixture” lacks antecedence.

Fourthly, within claim 14, component c) is not mutually exclusive from component b); both components contain uretdione groups, and component b) does not exclude other groups.

Fifthly, within claim 17, it is unclear what is meant by the language, “below in N position” and “modelling the two isocyanate groups”. Furthermore, the language, “small

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amounts", renders the claim indefinite, because the language is subjective. It cannot be determined quantitatively what constitutes "small amounts".

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 11-21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7-9 and 14-16 of copending Application No. 11/080,176. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to polyisocyanate reaction products, wherein ethylenically unsaturated groups, such as acrylates, are attached through allophanate groups. Furthermore, since the copending compositions are derived from

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uretdione containing compounds, the position is taken that the copending compositions contain uretdione compounds in addition to the allophanate compounds.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 11-21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6-10 and 14-20 of copending Application No. 11/080,706. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to polyisocyanate reaction products, wherein ethylenically unsaturated groups, such as acrylates, are attached through allophanate groups. Furthermore, since the copending compositions are derived from uretdione containing compounds, the position is taken that the copending compositions contain uretdione compounds in addition to the allophanate compounds.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claims 11-21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-20 of copending Application No. 11/217,207. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to polyisocyanate reaction products, wherein ethylenically unsaturated groups, such as acrylates, are attached through allophanate groups. Furthermore, since the copending compositions are derived from uretdione containing compounds, the position is taken that the copending compositions contain uretdione compounds in addition to the allophanate compounds.

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This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 11-21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-20 of copending Application No. 11/217,727. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to polyisocyanate reaction products, wherein ethylenically unsaturated groups, such as acrylates, are attached through allophanate groups. Furthermore, since the copending compositions are derived from uretdione containing compounds, the position is taken that the copending compositions contain uretdione compounds in addition to the allophanate compounds.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 11-21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12-20 of copending Application No. 11/217,728. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims is drawn to polyisocyanate reaction products, wherein ethylenically unsaturated groups, such as acrylates, are attached through allophanate groups. Furthermore, since the copending compositions are derived from uretdione containing compounds, the position is taken that the copending compositions contain uretdione compounds in addition to the allophanate compounds.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 11, 15, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by CA 2356685.

The reference discloses polyisocyanates containing allophanate groups wherein an ethylenically unsaturated group, such as an acrylate, methacrylate, or vinyl ether, is attached through the in chain allophanate group. See pages 4 and 5. The reference additionally discloses that stabilizers or reaction inhibitors may be incorporated within the composition and that the compositions are useful for coating substrates, such as vehicle bodies. See pages 9 and 17.

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11. Claims 12, 16, 20, and 21 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over CA 2356685.

As aforementioned, the reference discloses polyisocyanates containing allophanate groups wherein an ethylenically unsaturated group, such as an acrylate, methacrylate, or vinyl ether, is attached through the in chain allophanate group. See pages 4 and 5. The reference additionally discloses that stabilizers or reaction inhibitors may be incorporated within the composition and that the compositions are useful for coating substrates, such as vehicle bodies. See pages 9 and 17. Furthermore, the reference discloses at page 6 that the allophanate containing compounds are preferably used in the form of mixtures. Uretdione compounds are disclosed at page 7 as being suitable components for these mixtures.

The reference discloses suitable components, other than uretdione compounds, for use in the aforementioned mixtures; therefore, even if the disclosure is not anticipatory, the position is taken in view of the teachings of the reference that it would have been obvious to select uretdiones from the recited compounds and employ them in combination with the allophanate compounds, so as to arrive at the instant invention.

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over CA 2356685.

As aforementioned within paragraph 11, the reference is considered to at the least render obvious the mixture of the allophanate compounds with uretdione compounds; however, the reference fails to disclose a mixture wherein an additional compound containing both uretdione groups and allophanate groups is present. However, the reference clearly envisions additional components containing allophanate groups at pages 6 and 7, along with other groups. In view of this disclosure, and since the reference teaches that mixtures of components are preferred, the



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position is taken that it would have been obvious to incorporate components containing any of the disclosed groups, including components containing multiple groups, such as the claimed combination of uretdione and allophanate groups.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

  
RABON SERGENT  
PRIMARY EXAMINER

R. Sergent  
September 25, 2005